APPROVED JURISDICTIONAL DETERMINATION FORM U.S. Army Corps of Engineers

This form should be completed by following the instructions provided in Section IV of the JD Form Instructional Guidebook.

SECTION I: BACKGROUND INFORMATION A. REPORT COMPLETION DATE FOR APPROVED JURISDICTIONAL DETERMINATION (JD): 29 December 2016
B. DISTRICT OFFICE, FILE NAME, AND NUMBER: NAO, Schoch property, NAO-2001-01739 (01-R0152)
C. PROJECT LOCATION AND BACKGROUND INFORMATION: State: Virginia County/parish/borough: N/A City: Chesapeake Center coordinates of site (lat/long in degree decimal format): Lat. 36.672536° North , Long76.198691° West Universal Transverse Mercator: N/A Name of nearest waterbody: Cooper's Ditch, unnamed tributaries to A&C Canal (Intracoastal Waterway) and Pocaty River
Name of nearest Traditional Navigable Water (TNW) into which the aquatic resource flows: A&C Canal (Intracoastal Waterway) Name of watershed or Hydrologic Unit Code (HUC): 03010205 (Albemarle) Check if map/diagram of review area and/or potential jurisdictional areas is/are available upon request. Check if other sites (e.g., offsite mitigation sites, disposal sites, etc) are associated with this action and are recorded on a different JD form.
D. REVIEW PERFORMED FOR SITE EVALUATION (CHECK ALL THAT APPLY): ☐ Office (Desk) Determination. ☐ Date: 29 December 2016 ☐ Date(s): 10 Aug, 14 Sept, 27 & 28 Oct 2016
SECTION II: SUMMARY OF FINDINGS A. RHA SECTION 10 DETERMINATION OF JURISDICTION. There Are no "navigable waters of the U.S." within Rivers and Harbors Act (RHA) jurisdiction (as defined by 33 CFR part 329) in the review area. [Required] Waters subject to the ebb and flow of the tide. Waters are presently used, or have been used in the past, or may be susceptible for use to transport interstate or foreign commerce.
Explain: All onsite wetlands/waters are non-tidal and not navigable-in-fact.
B. CWA SECTION 404 DETERMINATION OF JURISDICTION. There Are "waters of the U.S." within Clean Water Act (CWA) jurisdiction (as defined by 33 CFR part 328) in the review area. [Required] 1. Waters of the U.S. a. Indicate presence of waters of U.S. in review area (check all that apply): TNWs, including territorial seas Wetlands adjacent to TNWs Relatively permanent waters² (RPWs) that flow directly or indirectly into TNWs Non-RPWs that flow directly or indirectly into TNWs Wetlands directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to but not directly abutting RPWs that flow directly or indirectly into TNWs Wetlands adjacent to non-RPWs that flow directly or indirectly into TNWs Impoundments of jurisdictional waters
Isolated (interstate or intrastate) waters, including isolated wetlands b. Identify (estimate) size of waters of the U.S. in the review area: Non-wetland waters: linear feet: ~4,925 width (ft): variable Wetlands: ~126 acres.

¹ Boxes checked below shall be supported by completing the appropriate sections in Section III below

² For purposes of this form, an RPW is defined as a tributary that is not a TNW and that typically flows year-round or has continuous flow at least "seasonally" (e.g., typically 3 months).

c. Limits (boundaries) of jurisdiction based on: COE Manual & applicable Regional Supplement

Elevation of established OHWM (if known): Not known, although field indicators of OHWM are present along the entire length of onsite ditches and accessible portions of offsite ditches. Representative conditions were documented with Epi-Collect.

SECTION III: CWA ANALYSIS

D. DETERMINATIONS OF JURISDICTIONAL FIN	DINGS. THE SUBJECT V	WATERS/WETLANDS ARE	(CHECK ALL
THAT APPLY):			

2. RPWs that flow directly or indirectly into TNWs.

Tributaries of TNWs where tributaries typically flow year-round are jurisdictional. Provide data and rationale indicating that tributary(-ies) is/are perennial: The ditches that convey surface water flow from the onsite wetlands to TNWs have had water every time that I've visited the site, regardless of time-of-year (i.e., water present even in middle of the summer). Majority of these ditches lack any vegetation in the bottom which indicates long duration ponding. Well-developed and numerous field indicators of OHWM observed.

The Fentress USGS quad depicts the ditch along the eastern property boundary (west side of the railroad tracks) as a perennial watercourse. Additionally, the quad depicts the western half of flowpath 1 (~Millstone Road crossing and westward) as a perennial waterway. These same watercourses are identified as "canals" by the EPA in their MyWaters database (https://watersgeo.epa.gov/mwm/).

Provide estimates for jurisdictional waters in t	he review area (check all that apply):
☐ Tributary waters: ~4,925 linear feet	variable width (ft).

4. Wetlands directly abutting an RPW that flow directly or indirectly into TNWs.

Wetlands directly abut RPW and thus are jurisdictional as adjacent wetlands.

Wetlands directly abutting an RPW where tributaries typically flow year-round. Provide data and rationale indicating that tributary is perennial in Section III.D.2, above. Provide rationale indicating that wetland is directly abutting an RPW: The onsite wetlands have been consistently mapped by MAP Environmental since 2001 as extending all the way to ditches that border the western and southern property boundaries. During field visits there were clearly places where onsite surface water flows (at least seasonally) from wetlands directly into boundary ditches. The western ditch may have a drainage zone-of-influence associated with it, but there are still areas where obvious wetland swales tie directly into it. The southern boundary ditch is relatively small and likely has no to little drainage zone-of-influence, and wetlands directly abut virtually the entirety of the ditch length. There are no side-cast spoil berms or other obstructions that would prevent wetlands from directly abutting the boundary ditches.

Provide acreage estimates for jurisdictional wetlands in the review area: ~128 acres.

SECTION IV: DATA SOURCES.

A. SUPPORTING DATA. Data reviewed for JD (check all that apply - checked items shall be included in case file and, where checked and requested, appropriately reference sources below):

Maps, plans, plots or plat submitted by or on behalf of the applicant/consultant: 12 March 2009 delineation figure
prepared by MAP Environmental
Data sheets prepared/submitted by or on behalf of the applicant/consultant.
Office concurs with data sheets/delineation report. 13 March 2008 report and 2009 datasheets & mapping by
MAP Environmental
Office does not concur with data sheets/delineation report.
Data sheets prepared by the Corps: dated 10 August & 14 Sept 2016, mainly just o document site conditions had not
changed and to sample areas formerly considered by MAP Environmental to be upland but more recently mapped them as
wetland.
Corps navigable waters' study:
U.S. Geological Survey Hydrologic Atlas:
USGS NHD data. NHD Plus, v. 2.1
☐ USGS 8 and 12 digit HUC maps. HUC 03010205 (Albermarle)

∠ U.S. Geological Survey map(s). Cite scale & quad name: Fentress quad, various years
☐ USDA Natural Resources Conservation Service Soil Survey. Citation: SSURGO data
National wetlands inventory map(s). Cite name: Fentress quad data from online NWI mapper
☐ State/Local wetland inventory map(s):
FEMA/FIRM maps:
☐ 100-year Floodplain Elevation is: (National Geodectic Vertical Datum of 1929)
Photographs: Aerial (Name & Date): various GIS, Google Earth, Bing Bird's Eye, & Digital-Globe aerials.
or Other (Name & Date): ground photos taken on dates of field visits
Previous determination(s). File no. and date of response letter: 01-R0152 JD & confirmation of wetland delineation by
MAP Environmental dated 26 March 2002; NAO-2001-01739 approved JD and confirmation of wetland delineation by MAP
Environmental dated 25 Nov 2009.
Applicable/supporting case law:
Applicable/supporting scientific literature: NAO citations in Significant Nexus Determinations: Documenting Stream &
Wetland Functions (December, 2007) to supplement observations of OHWM field indicators.
Other information (please specify):

B. ADDITIONAL COMMENTS TO SUPPORT JD:

Use of <u>Corps of Engineers Wetlands Delineation Manual</u> (1987), the <u>Regional Supplement to the Corps of Engineers Wetland</u> <u>Delineation Manual: Atlantic and Gulf Coastal Plain Region, Version 2.0</u> (2010), and 2016 NWPL for wetland delineation and review of MAP Environmental report.

Google Earth Pro file entitled "Schoch - NAO-2001-01739.kmz" & ArcGIS file entitled "Mince Farms.mxd": Used these programs to compile aerial photo history, look for potential field indicators of wetland hydrology based on remote sensing, review property at different times of year to see any change with season and climate.

EPA WATERS data (v 1.8) – NHDPlus v 2.1 Watershed Characterization Report Mapping and data to document locations of water features and estimates of flow rates. See JD site visit report and attachments.

Epi-Collect app to document field indicators of OHWM at various points along surface water flow paths from the project site to TNWs in 2016. See JD site visit report and attachments.

City of Chesapeake Coopers Ditch Watershed study (Oct, 2012)

Mapping and data to document locations of water features and estimates of flow rates. See JD site visit report and attachments.

Historical topo maps from https://ngmdb.usgs.gov/maps/TopoView/. Background to determine historical extent of wetlands in vicinity.